Behavioral Health Surveillance in the Army

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Disclaimer

The opinions expressed in this presentation are those of the author and **do not** represent the official opinion of the Uniformed Services University of the Health Sciences, the Department of the Army or the Department of Defense.

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General Topics

- A brief history
- Current deployment stresses for service members
- Surveillance
  - LAND Combat Study
  - MHAT-I
  - PDHA
  - MHAT-II*
  - PDHRA
  - Suicide study at AFME
  - EPICONs*

  *will focus on these
- Ongoing Actions

A Brief History of Combat Stress

- High rate of stress casualties in all wars in this century
- World War I--“shell shock”, over evacuation led to chronic psychiatric conditions, lessons learned
- World War II-- “battle fatigue”, lessons relearned
- “PIES” (proximity, immediacy, expectancy, simplicity) 1963
- “3 hots and a cots”

The Korean War

- Used lessons from WW I and II

After three days of such treatment…one lanky mountain boy, who had arrived trembling and sobbing that he could never go back, sat silent for a minute. Then he stood up. “Hell,” he said, “I guess somebody’s got to fight this god-damned war,” picked up his rifle and started trudging back up the trail toward the sound of the guns.

He is the average American boy, just under 20, who was pulled from his malted milks and basketball scores to be wounded in Korea.

History

- Vietnam
  - misconduct
  - drugs and alcohol
  - Post Traumatic Stress Disorder
- Desert Storm/Shield
  - “Persian Gulf illnesses”
  - medically unexplained physical symptoms
  - Questions about exposures to toxins

Operations Other than War

- Front line mental health treatment —PIES worked—in general
  - Somalia
  - Haiti
  - Saudi Arabia
  - Cuba
  - Balkans
    - Kosovo, Bosnia

The World Since 9/11

Since 9/11

- Anthrax cases
- West Nile virus
- Sniper attacks in DC area
- Poison gas in Moscow
- SARS
- Tsunami
- More anthrax scares
- Katrina
- Rita

Range of Deployment-Related Stress Reactions*

- Irritability, bad dreams, sleeplessness
- Difficulty connecting to families, employers
- Behavioral difficulties
  - domestic violence, substance abuse, “road rage”,
  - suicidal, homicidal behavior
  - misconduct
- Post-traumatic stress disorder (PTSD)
- Compassion fatigue
- Suicide
- Homicide

*may also occur in those non-deployed

Operation Noble Eagle/Operation Enduring Freedom/Operation Iraqi Freedom

- Initial questions about weapons of mass destruction
- Rapid pace of operations
- Strain on families
- Continual danger for troops

Initial Mental Health Issues in Iraq

- Significant forward mental health presence
- Dangers of travel
- Troops not always able to travel to meet with practitioners
- Question of a suicide cluster
- Psychiatric evacuations from theater —initially too many
- Medical/surgical evacuations from theater—higher risk for PTSD

Mental Health Assessment Team Report 1

- Data collected by 12 person team fall 2003
- Report released spring 2004
- Covered morale, service delivery, access to mental health--deficiencies found

The Ongoing Insurgency

- Extended deployment
- Increasing personal threats
- The scandal from Abu Ghraib
- Repeated deployments
- Casualties on all sides

LAND Combat Study

- Walter Reed Army Institute of Research (WRAIR) has done exceptional work in combat zone and afterwards
- NEJM article by Hoge et al (Aug 2004) reported that about 16-19% of returned soldiers had PTSD, anxiety, depression
  - Anonymous cross-sectional study
  - Using conservative scales, also measuring impairment
  - Report received wide-spread attention
  - Media: 1/6 soldiers has PTSD!
- Other assessments by WRAIR at 3 to 6 months
  - Europe
  - Ft. Lewis

Summary of Key Findings from Land Combat Study

- 16-19% of infantry Soldiers or Marines screened positive for a mental health problem when surveyed 3 to 6 months post-deployment Iraq.
- The largest increase in mental health problems post-deployment compared to pre-deployment was for post-traumatic stress disorder (PTSD) (12-15% vs. 5%).
- PTSD was co-morbid with alcohol misuse.
- Only one-third of Soldiers and Marines with mental health problems receive any professional help (including from chaplains).
- Most Soldiers with mental health problems perceive that they will be stigmatized if they receive care. Other barriers to care exist.

from Hoge, et al

Post Deployment Health Assessment (PDHA)

- Ongoing post-deployment health screens (PDHA)
  - Primary care provider does screen (2796) on re-deployment from theater
  - Clinical interview (not anonymous)
  - 6 Mental health questions
  - 3-5 % referred to behavioral health
    - Expected under-reporting of symptoms

Mental Health Assessment Team II

- Deployed back to Kuwait/Iraq in August 2004
- Principle mission to focus on whether recommended changes had been implemented
- Report just released
  - Improvement, but challenges remains

Back Home

- Preparation for the return
  - death by power point?
- Risky Behaviors
  - Increased accidents
- Emerging data shows increased domestic violence, substance abuse

Post-Deployment Health Re-Assessment (PDHRA)

- “Honeymoon” period
- 90 to 180 days following deployment
- Active duty and reserve component
- Screen has emphasis on behavioral health, but also asks physical health questions
- Implementation plan being worked out

PDHRA

- Great idea, hard to do
  - Especially for the reserve component
  - Resource, funding issues
  - Just piloted at Ft. Hood
  - Roll out in Jan 2006
- Should be part of a sustained effort
- “Resetting the Force”
  - Decompression, Re-integration, Reset

Office of the Armed Forces Medical Examiners (OAFME) Study of Suicides

- Review of all deaths done by OAFME
- Suicides also investigated
  - Difficult to gather data on deaths off-post, and for Reserve component not on active duty
  - Post deployment review of suicides revealed typical causes of intimate relationship, occupation and problems
  - Personal handgun most common cause

What is an EPICON?

- EPICONS are investigations of clusters, outbreaks, or epidemics of symptoms or illnesses.
- Modeled after CDC EPIAID, which is a service that CDC provides to state and local health departments.
- In Army EPICONS originally were limited exclusively to infectious diseases / environmental exposures, and coordinated through CHPPM.
- Mechanism was expanded to include clusters of behavioral health problems after outbreak of suicidal behaviors at Ft. Leonard Wood in 2000.

Request for an EPICON

- The perception that there is a problem (e.g. increased numbers of suicides, homicides, etc.) can lead to request for an EPICON.
- Request usually comes from local leader (e.g. hospital, brigade, or installation commander).
- Any consideration of an EPICON needs extensive coordination and approval, particularly from the local leadership of the installation that is involved, OTSG, MEDCOM, etc.

EPICON: Initial Steps

- Once and EPICON is initiated then there are some basic epidemiological strategies to be followed:
  - Define the questions
  - Conduct hypothesis generating interviews
  - Decide on case definitions for study
  - Conduct investigation using epidemiological methods
  - Analysis, briefs, recommendations
    - Complete initial analysis
    - Provide initial findings and recommendations to leadership
    - Complete final analysis and write-up.

Suicide Outbreaks

- Suicide outbreaks are unique from all other types of disease outbreaks, because the perception of the outbreak itself may lead to further cases*
- This is true for any type of behavioral health outbreak.

O'Carroll PW, Mercy JA. Am J. Epidemiology 1990;132:S196-202

EPICON: Before Initiating and EPICON

- Conduct initial review of the available facts
  - What the particular concern is
  - Number of cases
  - Dates of cases
  - What has been done to date
  - What are the initial hypotheses being mentioned by those who are on the ground? (note that initial hypotheses are often wrong, but it is critical to make a list of all possible hypotheses as starting point.)
  - Decide on initial strategy and team composition

Step 1. Define the questions

- Most basic question that is always asked:
  - Is there a real outbreak? / Is this cluster significantly higher than expected?
- What factors contributed to the outbreak?
- What recommendations should be made to address the problem?

Step 2. Hypothesis Generating Interviews

- It is important to conduct interviews with anyone who can help you clarify the nature of the outbreak at the beginning to help guide your investigation.

Step 3. Establish case definitions and time period

- What will be included as a case?
- Outbreak time period
- Person, place, time
- Control or reference population or time period
- Draw Epi-curve

Step 4. Investigation

- Methods:
  - Case series (clinical, forensic, etc.)
  - Case-control study (cases vs. controls)
  - Cross-sectional study (e.g. compare cases with rest of battalion)
  - Focus group interviews
  - Interviews of leaders, health care providers, etc.
  - Infectious diseases epidemiology is actually useful (concepts of “exposure” to index cases, “contagion” “isolation”)

High-Risk Populations

- Wounded service members and their families
- Psychiatrically ill patients
- Families of the deceased
- Medical staff and other highly exposed personnel (eg chaplains, mortuary affairs, casualty assistance officers)
- Medical Hold/holdover patients
- Isolated Reserve component

Solutions—In Progress

- Post-Deployment Health Re-assessment
- Deployment Cycle Support—
  - partial answer
- Military One Source—
  - counseling benefit appears valuable (especially martial therapy)
  - Work together more closely in underserved communities
- Community based health care organizations
- New treatment guidelines available
  - DoD-VA, APA PTSD guidelines
  - Deployment Health guidelines

What is Needed

- *Resources to implement recommendations*
  - ***Solutions not possible with existing resources***
  - Major attrition of uniformed providers
  - Not easy to hire qualified providers
- Local and national recruiting campaign for providers
- Policy/legislative changes? So the VA can help active duty, reservists and their families
- National Education Campaign
  - Partner with VA, HHS (SAMSHA, NIMH), the professional societies, schools
  - We need to put this “out front and center”
  - An outreach from the “war fighters”
- Continued strong support of Congress and the Executive Branch

Conclusion

- Mental health needs of our soldiers, our veterans and their families is critical to maintaining a resilient fighting force
- We know what should be done
- Let us put our national will to doing it *right*